

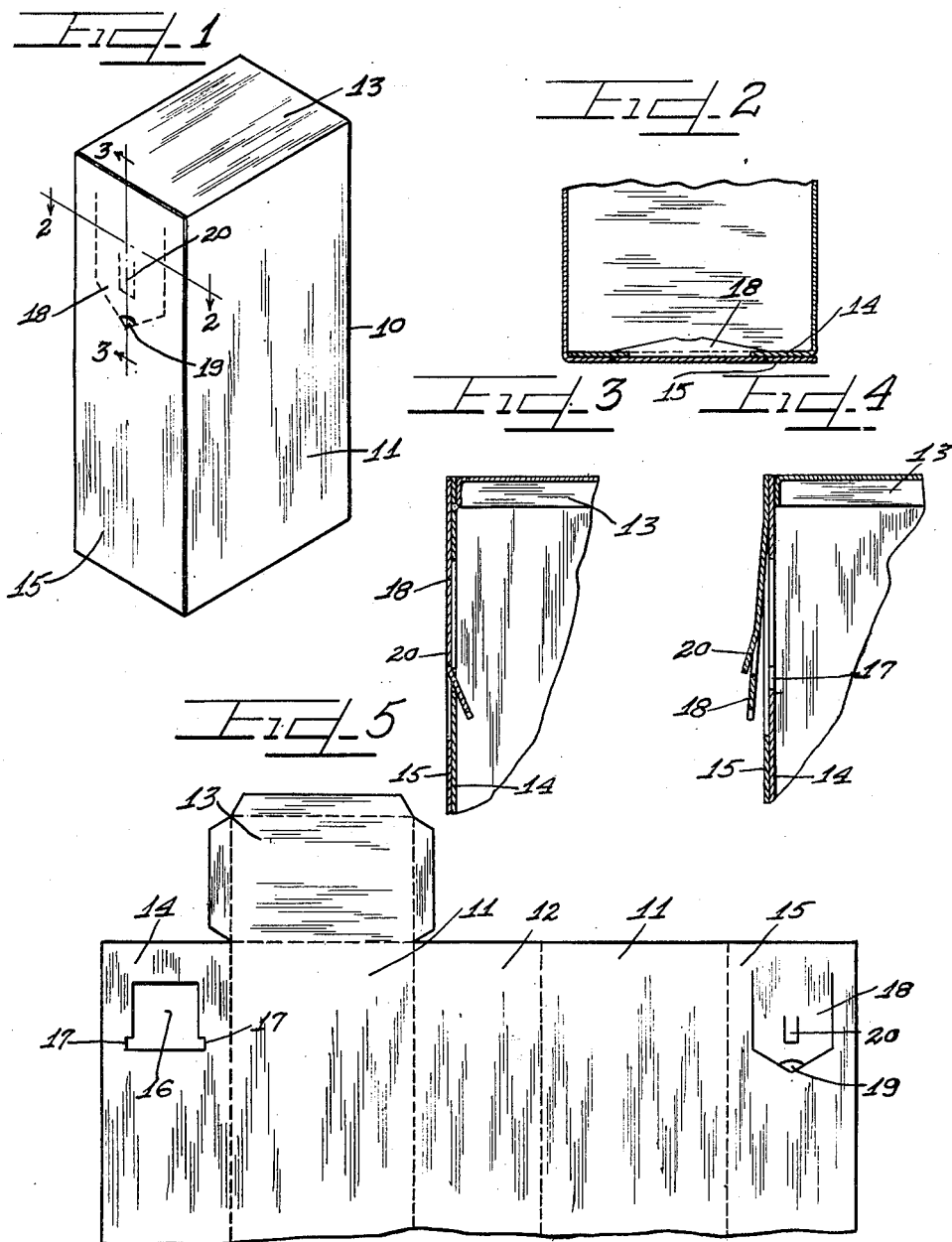
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PAPER BOX

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PAPER BOX.

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To all whom it may concern:

Be it known that I, FREDERICK C. WHIPPEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Paper Box, of which the following is a specification.

This invention relates to improvements in paper, pasteboard or strawboard boxes, which have in one of their walls or sides a discharging orifice and a hinged flap or cover thereover; and it consists in the matters to be hereinafter described, and pointed out in the appended claims.

A principal feature of the invention relates to the means whereby the flap is held in closed position, both before and after first use; additionally, it consists in a novel flap and flap supporting means; and an additional element of the invention resides in the unique and novel form in which the closure flap and the supporting part therefor are shaped or cut.

These features, and other features to be hereinafter disclosed, are described in the following specification which relates to the construction, combination, and arrangements of the parts of the device, which is illustrated in the single sheet of drawing accompanying this application and which is made a part thereof, and in which:—

Fig. 1 is a perspective view of a box provided with my closure and closure supporting means;

Figs. 2 and 3 are fragmentary sectional views along the lines 2—2 and 3—3 of Fig. 1, looking in the direction of the arrows;

Fig. 4 is a fragmentary sectional view showing the closure flap slightly pulled away from the box, and

Fig. 5 is a fragmentary view of a blank for forming a paper box embodying my invention.

Like reference characters are used to designate similar parts in the specification which follows and in the drawings herewith.

The ordinal 10 designates a paper, pasteboard, or strawboard box of ordinary parallelepiped configuration, which box of course may be cubical or otherwise shaped. Fig. 5 shows a blank out of which such a box as is illustrated in Fig. 1 may be formed.

The larger sides of the box are designated by the ordinal 11; the narrower side in

which there is no opening by the ordinal 12; the top, with its extensions for pasting to the sides of the box, by the ordinal 13; and the remaining narrow side comprises two thicknesses of material, the inner being designated by the ordinal 14 and the outer by the ordinal 15.

In section 14 of the blank, best illustrated in Fig. 5, there is an orifice 16, of generally rectangular configuration, but having at its lower end cut out portions 17, the purpose of which will later appear.

In section 15, the closure flap 18 is hinged. This is preferably formed, in the blank illustrated in Fig. 5, by a series of perforations, which perforations will permit of a separation of the flap from the main body of section 15 upon a slight pull from the under side of said flap closure. To facilitate gripping the flap to tear it along the line of the perforation, a cut-out portion or thumb insert 19 is cut within the side 15.

The width of flap 18 is slightly less or substantially equal to the width of the orifice 16 at the extensions 17. It will be noted that the flap 18 has a generally rectangular configuration with a triangular end extension at its lower extremity. Such triangular extension should project below the bottom extremity of the orifice 16 when the side 15 is laid upon extension 14 when the blank is formed into the completed box 10. Thus in such completed box, the flap 18 is supported by three disjointed shoulders, one at each side of the orifice 16 and supporting the sides of the flap 18, and the third engaging the triangular portion or extension of flap 18. The supporting shoulders reinforce the flap 18 against being pushed into the interior of the box 10, although it is quite possible that the flap 18 if not entirely cut away from the side 15 actually needs no inner support. Such shoulders show the additional purpose of preventing the escape of the contents of the box through the perforations determining the flap 18. Additional purposes of such shoulders will later be described.

The box having been completed, and filled with the commodity for which it is designed, it comes into the possession of the consumer of the commodity so packed. To open the box, the consumer inserts a finger or thumbnail at 19 and lifts flap 18 away

from the box, the perforations intermediate flap 18 and side 15 permitting of their ready separation. The contents of the box may then readily be poured, in such quantity as
 5 may be desired, through orifice 16 and through the portion of side 15 rendered open by the lifting of flap 18.

Usually, the entire contents of a box are not used when first opened. The contents
 10 may be damaged by admission of too much atmospheric air, with its dampness and other impurities. The consumer, when a sufficient portion of the contents have been poured out, bends the flap 18 slightly at its
 15 lower extremity and pushes the end thereof through the orifice 16 at the point of the extended cutout portions 17 thereof. The flap 18, immediately the distorting pressure is removed therefrom, will straighten out as
 20 far as possible and assume the position shown in Figs. 2 and 3, which latter distinctly shows the triangular extension of 18 projecting inwardly of the box and locking the flap 18 in position upon the shoulders
 25 at the side of the orifice 16. The contents of the box cannot then be emptied, and are adequately protected against the atmosphere. Fig. 2 shows the inward extension of the flap 18 as it would appear looking
 30 downwardly thereupon.

In order to quickly remove, or to facilitate the removal, of the flap 18 to permit of additional portions of the contents of the box 10 to be removed therefrom, a small
 35 or subordinate flap or tab 20 is provided in 18 near its lower end. This may be formed in the blank by perforations in the same manner as the flap 18 itself. By gripping the tab 20 and pulling upwardly thereon,
 40 the flap may be expeditiously withdrawn for emptying the contents of box 10.

Of course the flap 18 may be placed in the top of the box 10, or in one of the broad
 45 sides 11 thereof, and the shape of 18, and the corresponding orifice therebeneath, modified without departing from the spirit of the invention. Such invention resides in the shoulders to support the flap in its uncut or
 50 unused position, in the utility of one of the shoulders to form a locking portion after the flap is once pulled away from the box, in the utility of the other shoulders to hold the flap in alinement both before and after
 55 such first use, and in the production of a blank wherein an additional section is provided to produce the supporting shoulders and at the same time furnish a flap or extension for pasting to the open end of the blank when the box is formed therefrom. It
 60 is quite manifest that the side 15 with the flap 18 could be formed as indicated in Fig. 5, while the orifice 16 and the cutout extension could be made the part of a smaller portion of paper, pasteboard, or straw-
 65 board and pasted in proper position beneath

the flap 18 upon the interior side of side 15.

I claim:

1. In a paper box or the like a side having a discharge orifice therethrough, and a flap cover therefor of greater length than the discharge orifice and adapted to be inserted
 70 through one end thereof, the material of said side forming separated shoulders supporting said flap in aligned position, the portion of the flap inserted through said discharge
 75 orifice being adapted to rest parallel to said side.

2. In a paper box or the like, the combination of a side having a discharge orifice, and a flap cover therefor, said orifice being
 80 enlarged at one end to admit of the insertion of the free end of the flap therethrough in substantial alignment with said side.

3. In a paper box or the like, a side having a discharge orifice of generally rectangular configuration and having enlarged portion at one end thereof, and a flap cover
 85 therefor of substantially the same width as said orifice at its enlarged portion, the material adjacent the sides of said orifice forming shoulders preventing the insertion of the flap material into the box, said flap having
 90 an extension portion adapted to be inserted into the orifice at its enlarged portion whereby to lock said flap against accidental displacement.

4. In a paper box or the like, a side having a discharge orifice and a closure therefor, said orifice being of a generally rectangular configuration and having an enlarged
 100 portion at one end thereof, said closure member being formed from the material of one side of the box and being of substantially the same width as the enlarged portion of the discharge orifice, said closure
 105 member having an extension portion adapted to be inserted into the enlarged portion of said discharge orifice to close said orifice against the discharge of the contents of the box.

5. In a paper box or the like, a side having an opening of greater dimension at one end thereof, and a flap cover hinged upon the narrower and opposite end of said orifice, said flap extending in alignment with said
 115 side below the greater end of said orifice and being of substantially the same width as said greater end.

6. In paper box manufacture or the like, a blank for forming a box comprising the sides and ends thereof, and having an extension portion adapted to rest upon the inner side of the opposite end section of said blank, said extension having an orifice therethrough
 120 of greater width at one end, said end section being perforated to form a flap registering above said orifice, said flap being of substantially the same width as the greatest width of said discharge orifice and extending there-
 125 below, the blank when formed into a box

providing a container of substantially solid sides, said flap when freed along the line of perforations therein providing a hinged closure member engaging the material at the side of said orifice to prevent inward projection of the body of said flap, and being provided with an extension portion having a cutout section to admit of it being raised by the thumb or finger-nail, and a tab portion to permit of it being pulled upwardly and outwardly, said extension portion being adapted to be inserted through said orifice at its widest portion to provide a lock against accidental displacement of the flap from over said orifice. 10

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